

## Explanation for Codeplug as made by PC7MM

<b>Device</b>	Anytone AT-D878UV PLUS	<b>CPS / Firmware used</b>	3.07 / 3.07 (released on 29-04-2025)
<b>Codeplug date</b>	02-05-2025	<b>DMR user database</b>	02-05-2025 (only first 200.000 DMR contacts)
<b>Codeplug version</b>	20250502	<b>BM Talk Group list</b>	02-05-2025

## Disclaimer by PC7MM

This Codeplug has proven to work on the device as mentioned. PC7MM does however not take any responsibility for any negative impact of using this Codeplug. The Codeplug was generated using the CPS and Firmware versions as mentioned. The codeplug could be used with other versions/models but this was not tested. The Codeplug was designed for "MODE:00000" which means 400-480MHZ and 136-174MHZ. The codeplug might not work with other modes. To to change to "MODE:00000", press the PTT + number 1 button and power on the device afterwards. The mode can be changed by rotating the channel knob.

## Overview of Zones and Scanlists

Zone (# channels)	Zone Description	Zone (# channels)	Zone Description
Home (26)	Frequencies for home location, no hotspots and repeaters	Fire Brigade (16)	Fire brigade frequencies
Repeaters NL EHV (34)	FM/DMR Repeaters around Eindhoven	Red Cross (30)	Red Cross frequencies
Repeaters NL UTR (45)	FM/DMR Repeaters around Utrecht	TGN SIMPLEX (47)	Tijdelijk Gesloten Netten (TGN) frequencies (simplex)
Repeaters NL North (50)	FM/DMR Repeaters in The Netherlands (North region)	TGN DUPLEX (10)	Tijdelijk Gesloten Netten (TGN) frequencies (duplex)
Repeaters NL Middle (50)	FM/DMR Repeaters in The Netherlands (Middle region)	Companies (50)	Frequencies assigned to companies
Repeaters NL South (49)	FM/DMR Repeaters in The Netherlands (South region)	Construction(13)	Building project frequencies
Nautic 1 (50)	Nautical frequencies related to guidance	Repeaters BE (50)	FM/DMR Repeaters in Belgium
Nautic 2 (47)	Nautical frequencies related to information exchange	Repeaters CH (50)	FM/DMR Repeaters in Switzerland
Nautic 3 (50)	Nautical frequencies related to companies and Mariphone	Repeaters DE (50)	FM/DMR Repeaters in Germany
AERO Air-to-Air (22)	Aero Air-to-Air communication frequencies	Repeaters SP (50)	FM/DMR Repeaters in Spain
DARES (31)	Dutch Amateur Radio Emergency Service frequencies	Repeaters FR (50)	FM/DMR Repeaters in France
JOTA-PMR-SIMP (26)	Personal Mobile Radio (PMR) + Jamboree on the Air (JOTA)	Repeaters IT (50)	FM/DMR Repeaters in Italy
Freenet-FRS (28)	Family Radio Services (FRS) and Freenet frequencies	Repeaters LU (6)	FM/DMR Repeaters in Luxembourg
LPD 01-50 (50)	Low Power Devices (LDP) frequencies – part 1	Repeaters PT (50)	FM/DMR Repeaters in Portugal
LPD 51-69 (19)	Low Power Devices (LDP) frequencies – part 2	Repeaters UK (50)	FM/DMR Repeaters in United Kingdom
Digital Data (14)	Packet radio, APRS, AIS, P2000, PocsAG, Mobitex, DAPNET	Scanlists (22)	Scanable channels for scanning through the zones

## Explanation to Zones and Scanlists

Zones can contain a maximum of 250 Channels, scanlists only a maximum of 50 Channels. Because Zones and Scanlists are kept equal, both contain a maximum of 50 Channels. The codeplug contains 3965 channels. Besides all international repeaters, all channels are assigned to zones. You can adjust channel/zone assignments according to your specific needs. A separate zone "Scanlists" is available, which contains 1 Scannable Channel for every Zone. All Channels in the any Zone are scanned when the scan function is activated. Channels can be assigned to 1 or more Zones and hence Scanlists simultaneously. When a Channel is not assigned to any Zone, it can be found in the CPS but not in the device.

## Explanation to Scanning

You can browse to the Zone you want to scan through. The "Scanable Channel" should be displayed by default. Scanning starts by pressing button PF3 (orange). If activity is found on a Channel, the Scanner stops on that specific Channel. When the activity is finished, the Scanner automatically continues scanning. If you don't want the Scan function to start scanning again after the activity on a specific Channel is finished, you can press the Menu key (green). If you want to stop scanning, you can press the Exit key (red) at any time during the scanning process.

## Explanation to APRS

The "Home" Zone contains Channel "APRS Analog RxTx". This Channel can be used to automatically and manually send/receive APRS data via 144.80000 MHz or via 431.03750 MHz. The "Home" Zone contains Channel "APRS Digital RxTx". This Channel can be used to automatically and manually send/receive APRS data via a Hotspot or DMR Repeater.

## Adjustments before you can start using this Codeplug (can be done through CPS software)

Required	Enter your DMR ID and Callsign in "Radio ID List" menu item which is part of "Digital" menu
Required	Enter your callsign in "Your Call Sign" field with APRS settings
Required	Change the Power-On Display text or add your custom pictured being displayed during Power-On
Required	Enter your fixed GPS coordinates in the APRS settings, which will be used if you broadcast fixed GPS coordinates instead your real location data
Required	Enable all the options that are available via the "Tools" menu, option "Options", in the CPS software
Optional	Change the Channels in the Home Zone to your specific needs, for example: enter data of your own hotspots and add local repeaters
Optional	Change Channel/Zone/Scanlist assignments according to your needs, especially for international repeater frequencies that are not yet assigned to any Zone
Optional	Change power saving settings and display brightness settings according to your needs
Optional	Change hardware button functions according to your needs
Optional	Enable/disable and/or change power-on password
Optional	Change GPS status to ON instead of OFF if you want to send your real location data instead of the stored fixed GPS coordinates
Optional	Change APRS message that is sent with all outgoing APRS broadcasts in "Enter your sending text" field
Optional	Enable APRS to send real location data instead of sending fixed GPS coordinates
Optional	Change the transmit frequencies for the "APRS Analog RxTx" and/or "APRS Digital RxTx" Channels according to your requirements.

## Programmed functions of hardware buttons and hot keys (can be adjusted to your needs)

	Short press of button		Long press of button
<b>PF1 (blue)</b>	Start scanning through channels in selected zone	<b>PF1 (blue)</b>	During scanning, exclude a specific channel from being scanned
<b>PF2 (purple)</b>	Toggle between low/mid/high/turbo transmit power	<b>PF2 (purple)</b>	Switch between DMR Time Slot 1 and 2
<b>PF3 (orange)</b>	Toggle between main and sub channel	<b>PF3 (orange)</b>	Turn sub channel functionality on/off
<b>P1 (yellow)</b>	Toggle between channel names and frequencies	<b>P1 (yellow)</b>	Switch channel type: Analog, DMR, A+D, D+A
<b>P2 (yellow)</b>	Toggle between VFO and channel memories in zones	<b>P2 (yellow)</b>	Reverse TX and RX frequencies of repeater
<b>Hold Menu + press 1</b>	Select Talk Group 204 (The Netherlands)	<b>Hold Menu + press 7</b>	Select Talk Group 2043217 (PI4UTR UTR-LINK)
<b>Hold Menu + press 2</b>	Select Talk Group 20401 (Hobbyscoop C4FM Wires-X)	<b>Hold Menu + press 8</b>	Select Digital Contact List
<b>Hold Menu + press 3</b>	Select Talk Group 20423 (Utrecht)	<b>Hold Menu + press 9</b>	Go to Radio Settings
<b>Hold Menu + press 4</b>	Select Talk Group 20409 (Utrecht Leidsche Rijn)	<b>Hold Menu + press *</b>	Go to DMR SMS functions
<b>Hold Menu + press 5</b>	Select Talk Group 20493 (RFDX)	<b>Hold Menu + press #</b>	Go to Quick Texts for DMR SMS
<b>Hold Menu + press 6</b>	Select Talk Group 2045 (The Netherlands)		
<b>Hold 0</b>	Dial to Talk Group (hold # for dial to private DMR ID)	<b>Press PTT + PF1</b>	Send 1750Hz TBST Tone Burst
		<b>Press # in any Menu</b>	Go back directly to the main screen

